



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0143; Project Identifier MCAI-2021-01401-T]

RIN 2120-AA64

Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes. This proposed AD was prompted by reports of a certain bolt at the pivot pin link being found missing or having stress corrosion cracking. This proposed AD would require a modification to the nose landing gear (NLG) shock strut assembly. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC

20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyacocos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0143; Project Identifier MCAI-2021-01401-T” at the beginning of your comments. The most helpful comments reference a specific portion of the

proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2009-29R4, dated October 1, 2021 (TCCA AD CF-2009-29R4) (also referred to after this as the Mandatory Continuing Airworthiness

Information, or the MCAI), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143.

The FAA issued AD 2021-25-12, Amendment 39-21856 (86 FR 72174, December 21, 2021) (AD 2021-25-12), for certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. AD 2021-25-12 requires repetitive lubrications of the trailing arm of the NLG, which include a general visual inspection of the NLG pivot pin mechanism for discrepancies and replacement of missing or damaged bolts. AD 2021-25-12 also requires revising the existing maintenance or inspection program to include new and revised airworthiness limitations (life limits for certain bolts). AD 2021-25-12 corresponds to TCCA AD CF-2009-29R4, except AD 2021-25-12 does not include the modification to the NLG shock strut assembly specified in Part I of TCCA AD CF-2009-29R4. AD 2021-25-12 explained that the FAA was considering further rulemaking to require the modification. The FAA has now determined that further rulemaking is necessary, and this proposed AD follows from that determination.

The FAA is proposing this AD to address failure of the pivot pin retention bolt, which could result in a loss of directional control or loss of an NLG tire during takeoff or landing, which could lead to runway excursions. See the MCAI for additional background information.

Relationship Between Proposed AD and AD 2021-25-12

This NPRM does not propose to supersede AD 2021-25-12. Rather, the FAA has determined that a stand-alone AD would be more appropriate. This proposed AD would require the modification specified in Part I of TCCA AD CF-2009-29R4 that was not included in AD 2021-25-12.

Related Service Information Under 1 CFR Part 51

De Havilland Aircraft of Canada Limited has issued Service Bulletin 84-32-161, Revision B, dated March 31, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021. This service information describes procedures for modifying the NLG shock strut assembly by replacing special bolt, part number (P/N) 47205-1 or 47205-3, with a new retention bolt, P/N NAS6204-14D (the modification includes a reverse orientation of the retention bolt and a rework of the weight on wheel (WOW) proximity sensor cover to provide clearance for the re-oriented retention bolt).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described.

Differences Between this Proposed AD and the MCAI or Service Information

This proposed AD would only require the modification specified in Part I of TCCA AD CF-2009-29R4. The other actions specified in TCCA AD CF-2009-29R4 are required by FAA AD 2021-25-12.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 54 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
4 work-hours X \$85 per hour = \$340	\$8	\$348	\$18,792

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Docket No. FAA-2022-0143; Project Identifier MCAI-2021-01401-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes, certificated in any category, serial numbers 4001 and 4003 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Unsafe Condition

This AD was prompted by reports of a certain bolt at the pivot pin link being found missing or having stress corrosion cracking. The FAA is issuing this AD to address failure of the pivot pin retention bolt, which could result in a loss of directional control or loss of a nose landing gear (NLG) tire during takeoff or landing, which could lead to runway excursions.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification

For any airplane having an NLG shock strut assembly, part number (P/N) 47100-XX (where XX represents any number), that has special bolt P/N 47205-1 or 47205-3: Within 1,600 flight cycles or 9 months after the effective date of this AD, whichever occurs first, modify the NLG shock strut assembly, in accordance with paragraph 3.B., "Procedure," of the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, Revision B, dated March 31, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021.

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, dated April 7, 2020, including UTC Aerospace Systems Service Bulletin 47100-32-145, dated April 3, 2020; or De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, Revision A, dated January 27, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 2, dated January 4, 2021.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2009-29R4, dated October 1, 2021, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143.

(2) For more information about this AD, contact Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on February 15, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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